

Appl. No. 10/731,937
Atty. Docket No. CM1976C
Amdt. dated August 1, 2005
Reply to Office Action of 6/14/2005
Customer No. 27752

REMARKS/ARGUMENTS

Claims 1 and 4 are now in the application.

Claim 1 has been amended to recite that the metal is aluminum, per Claim 5, and Claim 5 has been cancelled as redundant.

Claim 1 has been further amended to recite that the primer comprises acrylic compounds. Basis is in Claim 8, and Claim 8 has been cancelled as redundant.

Claim 1 has been further amended to recite the ink/solvents, per original Claim 7, and Claim 7 has been cancelled as redundant.

It is submitted that all claims are fully supported, and entry is requested.

Formal Matters

For the record, there are no objections or rejections under §112 outstanding.

Rejection Under 35 USC 103

Claims 1, 4, 5 and 7 stand rejected over the "admitted prior art" in view of WO 93/08084, U.S. 5,200,253, U.S. 5,453,301 and U.S. 5,658,968.

Applicants respectfully traverse the rejections, to the extent they may apply to the claims as now amended.

Before addressing the specific grounds of rejection, it may be useful to provide a succinct, non-limiting, summary of the problems addressed by the present invention.

- i) Holograms are prepared by laying-down a thin layer of aluminum onto an embossed plastic surface.
- ii) For packaging purposes, it may be desirable to print over the hologram using ink.
- iii) However, Applicants have discovered that the aluminum layer can comprise miniscule holes.
- iv) Organic solvents in the ink can pass through those holes and partially dissolve/disrupt the underlying embossed layer.
- v) By the present invention, a primer coat is applied to the aluminum to prevent the passage of the ink solvent therethrough.
- vi) BUT, not every type of primer coat is useful. It must be water-based, since a solvent based primer would also be susceptible to disruption by the ink solvents.
- vii) **HOWEVER**, it is well-known in the art that water based primers are not receptive to solvent based inks and, therefore, are known in the art not to be used together. [See discussion of Catena '968 below.]

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- viii) **Contrary to the art**, Applicants have discovered a combination of water based primers (comprising acrylics) and solvent based inks (comprising ethanol/ethyl acetate) that is compatible and useful to solve the aforesaid problems.

With regard to the state of the “admitted” art, it would appear to be relevant to consider the cited ‘968 patent.

It is respectfully submitted that ‘968 can be fairly characterized as teaching away from the present invention.

While the Examiner has cited various passages from ‘968 in support of the rejections, it is noted that still other teachings from ‘968 are relevant and must also be considered.

At column 1, lines 27-30, the ‘968 patent teaches, “In addition, solvent-borne flexible packaging inks are generally not receptive to water-borne primers or adhesives.”

Again, at column 1, lines 43-50, the ‘968 patent teaches, “A unique problem faced by solvent-borne flexible packaging inks is that they are ordinarily not receptive to water-borne primers and adhesives, which printers now prefer. It was necessary to use an ink/primer/adhesive system which was either entirely solvent-borne or water-borne. This has prevented the widespread use of solvent-born flexible packaging inks in conjunction with water-borne primers and adhesives.” [emphasis supplied]

In sharp contrast to these teachings of ‘968, Applicants herein have discovered that a water based primer comprising acrylic compounds can be used with solvent based inks comprising ethanol or ethyl acetate solvents, all as specified in the claims.

It is submitted that ‘968 not only does not fairly suggest the aforesaid primer/ink combination, but also constitutes a summary of the art that would dissuade the skilled practitioner from making such combination, absent the special inks of ‘968.

Said another way, ‘968 assertedly solves the problem with a special ink. The present inventors solve the problem using a selected water based primer (acrylics) with selected solvent based inks (ethanol/ethyl acetate).

The previous discussion of WO 93/08084 continues to apply, but will not be repeated here, for the sake of brevity.

Even assuming *arguendo* that WO 93 would have even recognized the problems solved by the present invention, the “state of the art,” as documented in ‘968, would appear to teach: Don’t use a water based primer with a solvent based ink.

Nothing in this combination of WO 93 with ‘968, in view of the “state of the art” would:

- i) Suggest the aluminum layer penetration problem discovered herein (a §103 factor, as discussed in the previous amendment; MPEP 2141.02);
- ii) Suggest using a water based primer;

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- iii) Suggest that said primer comprise acrylic compounds, which make them usable with solvent based inks, as disclosed herein and in contrast with the "state of the art."

The '301 document assertedly teaches the increased need to use water-dilutable lacquers to eliminate pollution.

While the objective of '301 is indeed admirable, it suggests nothing to contradict the knowledge of the "state of the art" that aqueous based primers are not usable with solvent based inks. No suggestion to the contrary is found in '301, so it adds nothing to the combination of '968 and WO 93, vis-à-vis the problem/solution afforded by the present invention.

The '253 document squares with the teachings of '968 with respect to the state of the art. The "protective layer" disclosed at column 18, line 8, is said to be usually made of a cellulosic material, "... but if printing or other processing is to be done on the surface of the protective layer 116, it may be formed of a poly(vinylchloride-co-vinyl acetate) material."

Here, again, '253 teaches that there are special problems when a printer coating is to be printed. The cellulotics (presumably, water-based) are not then used.

Combining '253 with '968 and '301 amounts to teaching printing on solvent based primers, which, when using solvent based inks, is the exact opposite of the present invention.

In light of the foregoing, it is submitted that the cited combination of documents teaches neither the problem recognized by Applicants herein, nor its solution in the manner claimed. Reconsideration and withdrawal of the rejections on this basis are requested.

Claim 8 stands rejected over the aforesaid references, further in view of U.S. 3,945,963.

As noted at column 2, lines 1-5, the object of the '963 invention is to provide water-based coating compositions, said compositions comprising epoxy acrylics.

It is submitted that the fact that the coatings of '963 are water-based would tend to teach away from their use with solvent based inks, in view of the clear teachings of '968.

Said another way, if '968 is correct, then none of the cited documents, singly or in combination, would lead one to use an acrylic containing water based primer with a solvent based ink for any purpose, let alone to solve the problems addressed by Applicants herein, since to do so would contravene the "state of the art." Withdrawal of the rejection vis-à-vis acrylic primer (now in Claim 1) is requested.

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In light of the foregoing, early and favorable action is requested.

Respectfully submitted,

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